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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,466	02/25/2004	Ivan Thrall Smith	8274-020	9331
4678	7590	11/26/2010	EXAMINER	
MACCORD MASON PLLC			CHAPMAN, JEANETTE E	
300 N. GREENE STREET, SUITE 1600				
P. O. BOX 2974			ART UNIT	PAPER NUMBER
GREENSBORO, NC 27402			3633	
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			11/26/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/786,466	SMITH, IVAN THRALL
	Examiner	Art Unit
	Jeanette E. Chapman	3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 October 2010.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3,5-18,20,25-27,29-41,43 and 48 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-3,5-18,20,25-27,29-41,43 and 48 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Contrary to the claim language of claims 12 and 26, the interior support structure is not made of 2x8 wood but of 2x4 wood. see page 4 of the specification. The tying structure is made of 2x8 wood.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5-18,20,25-27,29-41,43 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gebhardt et al (4464877) in view of **ASTM E119-95a** "Fire Test of Building Construction and Materials Limited Load Conditions (2 x 4 Wood Double Leaf Wall) project no. 15746-101913 (dated 9/1997)

Claim 1 .

ASTM discloses a structure having a fire resistance rated, area separation support wall.

The area separation (bearing) wall further includes a tying structure, 42-43 having an overlaid double top plate assembly for connecting said fire resistance rated, area separation,(bearing) wall to said first unit A-F and said second unit A-F of Gebhardt; Gebhardt further discloses a top plates 42/43 is attached to the top edge of said area separation wall.

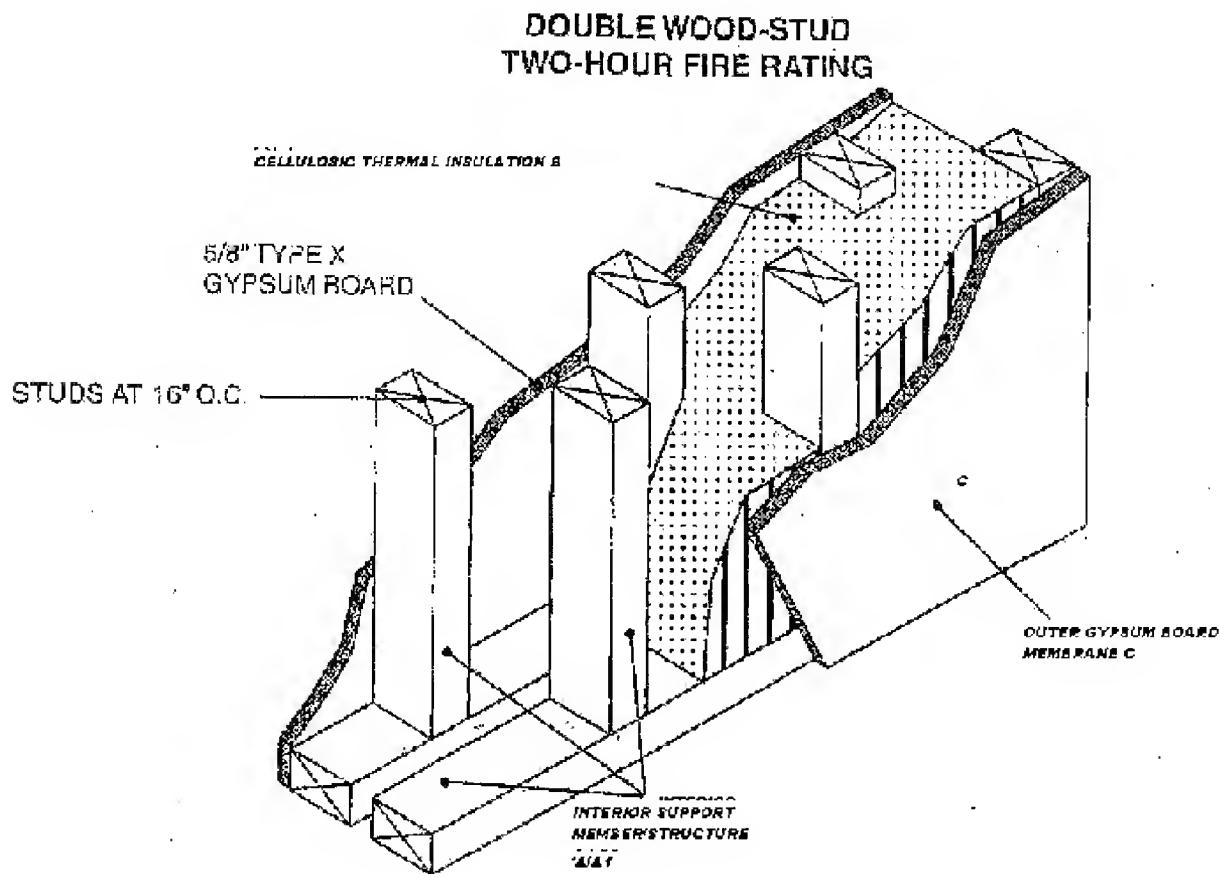
Gebhardt discloses a structure comprising:

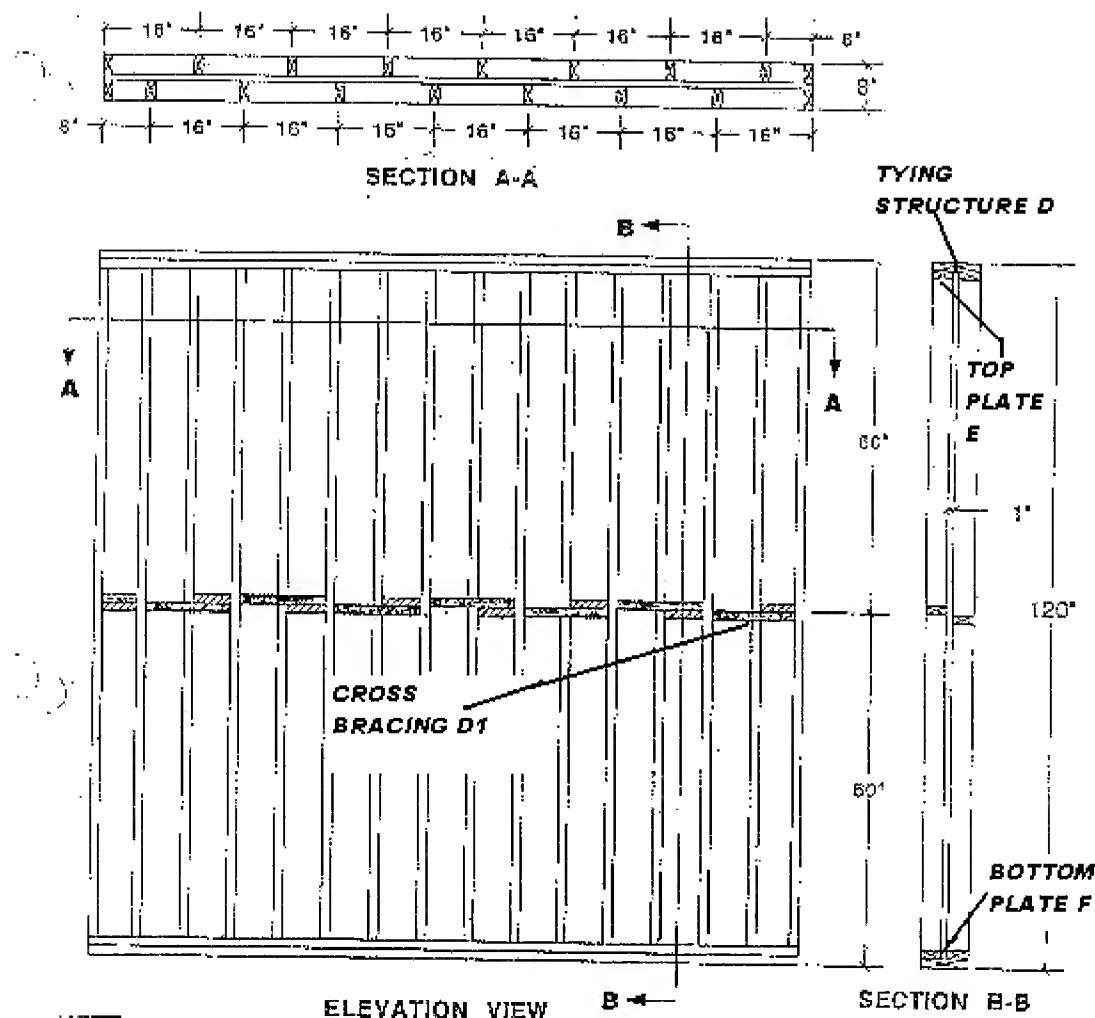
- (a) a first multilevel building unit A-F;
- (b) a second multilevel building unit A-F; and
- (c) an area separation wall 37-39 rated for two hours fire resistance (column 6, lines 26-42 and column 8, lines 59-64)

ASTM figure 1 discloses an area separation (bearing) wall rated for two hours fire resistance according to Underwriter Laboratories, Inc. Test ANSI/UL 263, said area separation wall having only outer membranes C wherein each outer membrane is a single sheet of fire resistant wallboard, Type X , gypsum board, and including a cellulosic thermal insulation barrier B between said outer membranes, figure 1; said area separation (bearing) wall further includes a tying structure, Section A-A, B-B constructed of 2X8 wood having an overlaid double top plate assembly "**for or capable of**" connecting said fire resistance rated, area separation,(bearing) wall to said first unit 11 and said second unit 11 of Gebhardt; Gebhardt further discloses a top plates 42/43 is attached to the top edge of said area separation wall.

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In view of the above, it would have been obvious to substitute the area separation walls 37-39 of Gebhardt for those taught in ASTM in order to include a more effective and proven (tested wall) as shown by ASTM.





claim 2.

ASTM, section B-B discloses the structure according to Claim 1, wherein said double top plate assembly E includes a pair of double top plates.

Claim 3.

ASTM, Section B-B discloses the structure according to Claim 2, wherein said tying structure D includes a bottom plate attached to the bottom edge of said fire resistance

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rated, area separation wall.

claim 5.

ASTM, elevation view page 15 discloses the structure according to Claim 3, wherein one of said double top plates E and said bottom plate D1 are less than about 10 feet apart; ; the elevation view page 15 shows the double plate approx 5 feet apart.

claim 6.

Gebhardt discloses the structure according to Claim 1, wherein said first building unit A-F is an occupiable space.

claim 7.

Gebhardt discloses the structure according to Claim 6, wherein said occupiable space is residential.

claim 8.

Gebhardt discloses the structure according to Claim 7, wherein said residential occupiable space is a town home.

claim 9.

Gebhardt discloses the structure according to Claim 1, wherein said second building 11/11' unit is an occupiable space.

claim 10.

Gebhardt discloses the structure according to Claim 9, wherein said occupiable space is residential.

claim 11 .

Gebhardt discloses the structure according to Claim 10, wherein said residential occupiable space is a town home.

claim 12.

Gebhardt discloses a two-hour fire resistance rated, area separation support wall for a multilevel structure. See column 6, line 26-42 and column 8, lines 59-64.

The area separation wall 31, 37-39 further including a tying structure , 42-43, having an overlaid double top plate assembly for connecting said fire resistance rated, area separation wall to said first unit A-F and said second unit A-F

ASTM discloses a two-hour fire resistance rated, area separation support wall, said an area separation wall comprising:

(a) an interior support structure A constructed of 2X4 wood;

(b) only an outer membrane of Gypsum C on each side of said interior support structure wherein each outer membrane is a single sheet of fire resistant wallboard or Type X gypsum board. See figure 1; and

(c) a substantially cellulosic thermal insulation B barrier (greenstone spray-applied cellulose insulation between said outer membranes; said area separation wall rated for two hours fire resistance according to Underwriter Laboratories, Inc. Test ANSI/UL 263, said area separation wall having a maximum height of 10 feet, see figure labeled section B-B, said area separation wall further including a tying structure, shown in figure labeled section A-A and B-B, page 15 having an overlaid double top plate assembly "for or capable of" connecting said fire resistance rated, area separation wall to said first unit

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and said second unit wherein one of the top plates is attached to the top edge of said area separation wall. SEE FIGURE LABELED SECTION B-B.

In view of the above, it would have been obvious to substitute the area separation walls 37-39 of Gebhardt for those taught in ASTM in order to include a more effective and proven (tested wall) as shown by ASTM.

claim 13.

ASTM discloses the area separation wall according to Claim 12, wherein said interior support structure A1 includes at least two structurally independent interior support members. See figure 1.

claim 14.

ASTM figure 1 discloses the area separation wall according to Claim 13, wherein said structurally independent interior support members A include a plurality of vertical members A1.

claim 15.

ASTM discloses the area separation wall according to Claim 14, wherein said plurality of vertical members A1 are spaced apart.

claim 16.

ASTM page 15, figure labeled Section A-A discloses the area separation wall according to Claim 15, wherein said plurality of vertical members A1 are spaced apart no more than about 16 inches.

claim 17.

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ASTM page 15, figure labeled ELEVATION VIEW discloses the area separation wall according to Claim 14, wherein said plurality of vertical members further include cross bracing at about the mid height of said plurality of vertical members.

claim 18.

ASTM figure 1 discloses the area separation wall according to Claim 13, further including a physical gap between said structurally independent interior support members A1.

claim 20.

ASTM discloses the area separation wall according to Claim 12, wherein said fire resistant wallboard C is a gypsum wallboard (GWB).

claim 25.

ASTM discloses the area separation wall according to Claim 12, wherein said substantially thermal insulation barrier is an acoustically non-conductive material. Cellulose is a natural wood fiber; natural materials are known to have organic versions.

claim 26.

Gebhardt discloses a structure having a fire resistance rated, area separation support wall, said structure comprising:

- (a) a first multilevel building unit A-F;
- (b) a second multilevel building unit A-F; and
- (c) a first area separation wall 31,37-39 rated for two hours fire resistance.

The area separation wall includes a tying structure 42/43 having an overlaid double top plate assembly for connecting said fire resistance rated, first area separation wall to

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said first unit A-F and said second unit A-F wherein one of the top plates is attached to the top edge of said area separation wall; and

(e)

a second area separation wall 31 constructed substantially identically to said first area separation wall, said second area separation wall connected to said first area separation wall. SEE FIGURES 1 AND 9

ASTM figure 1, figures labeled SECTION A-A, B-B, ELEVATION VIEW discloses a first area separation wall rated for two hours fire resistance according to Underwriter Laboratories, Inc. Test ANSI/UL 263 having only outer membranes, said first area separation wall including: (i) an interior support structure A/A1constructed of 2X 4 wood; (ii) only an outer membrane C on each side of said interior support structure A/A1 wherein each outer membrane is a single sheet of fire resistant wallboard; and (iii) a substantially cellulosic thermal insulation barrier B between said outer membranes C; and

(d) a tying structure D, Page 15, figure labeled SECTION B-B having an overlaid double top plate assembly .

In view of the above, it would have been obvious to substitute the area separation walls 37-39 of Gebhardt for those taught in ASTM in order to include a more effective and proven (tested wall) as shown by ASTM.

Claim 27.

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ASTM figure labeled SECTION B-B discloses the structure according to Claim 26, wherein said tying structure includes a bottom plate F attached to the bottom edge of said fire resistance rated, first area separation wall.

Claim 29.

ASTM figure labeled SECTION B-B discloses the structure according to Claim 27, wherein one of said double top plates and said bottom plate are less than about 10 feet apart.

claim 30.

Gebhardt discloses the structure according to Claim 26, wherein said first building unit is an occupiable space.

claim 31 .

Gebhardt discloses the structure according to Claim 30, wherein said occupiable space is residential.

claim 32.

Gebhardt discloses the structure according to Claim 31, wherein said residential occupiable space is a town home.

claim 33.

Gebhardt discloses the structure according to Claim 26, wherein said second building unit is an occupiable space.

claim 34

Gebhardt discloses the structure according to Claim 33, wherein said occupiable space is residential.

claim 35.

Gebhardt discloses the structure according to Claim 34, wherein said residential occupiable space is a town home.

claim 36.

ASTM discloses the structure according to Claim 26, wherein said interior support structure A includes at least two structurally independent interior support members A1.

claim 37.

ASTM discloses the structure according to Claim 36, whereto said structurally independent interior support members A include a plurality of vertical members A1.

claim 38.

ASTM discloses the structure according to Claim 37, wherein said plurality of vertical members A1 are spaced apart.

Claim 39.

ASTM figure labeled SECTION A-A, PAGE 15, discloses the structure according to Claim 38, wherein said plurality of vertical members are spaced apart no more than about 16 inches.

Claim 40.

ASTM figure labeled ELEVATION VIEW discloses the structure according to Claim 37, wherein said plurality of vertical members A1 further include cross bracing D1 at about

the mid height of said plurality of vertical members.

Claim 41

ASTM figure 1 discloses the structure according to Claim 39, further including a physical gap between said structurally independent interior support members.

claim 43.

ASTM discloses the structure according to Claim 26, wherein said fire resistant wallboard C is a gypsum wallboard (GWB).

claim 48.

ASTM discloses the area separation wall according to Claim 26, wherein said substantially thermal insulation barrier is an acoustically non-conductive material.

Cellulose is a natural wood fiber; natural materials are known to have organic versions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanette E. Chapman whose telephone number is 571-272-6841. The examiner can normally be reached on monday-friday, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/
Primary Examiner, Art Unit 3633
